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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/866,245	MIKI ET AL.	
	Examiner	Art Unit	
	JASON LIN	2425	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 May 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,6,7,9-15,18,21 and 23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1, 6, 7, 9-15, 18, 21, and 23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This office action is responsive to application No. 09/866,245 filed on 05/02/2011.

Claims 1, 6, 7, 9-15, 18, 21, and 23 are pending and have been examined.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 11-15, 18, and 21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 contains elements

- client module
- input unit
- accessing unit
- extracting means
- designating unit
- selecting unit
- searching unit

Claim 11 uses the phrase “means for” or “step for” or a non-structural term coupled with functional language, but it is modified by some structure, material, or acts recited in the claim. It is unclear whether the recited structure, material, or acts are

sufficient for performing the claimed function because the specifications do not contain a corresponding structure for the corresponding terms.

If applicant wishes to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant may amend the claim so that the phrase “means for” or “step for” or the non-structural term is clearly **not** modified by sufficient structure, material, or acts for performing the claimed function, or present a sufficient showing that the claim limitation is written as a function to be performed and the claim does **not** recite sufficient structure, material, or acts for performing the claimed function.

If applicant does **not** wish to have the claim limitation treated under 35 U.S.C. 112, sixth paragraph, applicant may amend the claim so that it will clearly not invoke 35 U.S.C. 112, sixth paragraph, or present a sufficient showing that the claim recites sufficient structure, material, or acts for performing the claimed function to preclude application of 35 U.S.C. 112, sixth paragraph.

Response to Arguments

3. Applicant's arguments filed 05/02/2011 have been fully considered but they are not persuasive.

In view of the claim amendments, these limitations are met by Livowsky’605. Livowsky (US 6,594,657) teaches in Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes. Please see office action below.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. **Claims 1, 6, 7, 11-13, 15, and 23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US 6,133,909), in view of Livowsky (US 6,594,657), in view of Boyer et al. (US 7,165,098), in view of Hendricks (US 5,798,785), and further in view of Erdelyi (US 6,631,522).

Consider **claims 1 and 11,** Schein teaches an electronic-program-guide retrieval method and system (Col 1: lines 49-56) comprising:

a data server including an electronic-program-guide database storing program information of an electronic program guide (Col 8: line 64 - Col 9: line 1, Col 9: lines 16-17, 48-51);

a client module (computer 12-Fig.1, set top box 420-Fig.7) comprising:

an input unit for inputting said retrieval keywords (Col 2: lines 18-23);

accessing a EPG database to search program records based on an input retrieval keyword (Col 13: lines 33-39) to retrieve query results related to the input retrieval keyword (Col 13: lines 36-43).

Schein does not explicitly teach a dictionary database for storing a plurality of retrieval keywords and a plurality of additional keywords relevant to said retrieval keywords,

wherein the dictionary database is stored in a data server whereby, by providing the dictionary database in the data server, the dictionary database is used in common, and accordingly, in a client having a small data storage capacity in a home server, a HDD recorder 400, or a PC, storage capacity is Not occupied by the dictionary database, and

wherein when contents of the dictionary database are updated, maintenance of difference data does not need to be performed by the home server; and

an accessing unit for accessing said dictionary database as a function of said retrieval keywords and the plurality of additional keywords;

when receiving the input retrieval keyword, extracting means for extracting at least one additional keyword from the dictionary database as a function of the input retrieval keyword,

wherein, when the input retrieval keyword is input by the input means, the at least one additional keyword is extracted from the dictionary database as a function of the input retrieval keyword by the extracting means;

a designating unit for pre-designating one particular database from among a plurality of databases, including an electronic-program-guide database, a movie information database, and a drama information database,

wherein each of the plurality of databases are provided in separate data servers for distributed arrangements at different locations;

a selecting unit for selecting a route to the particular database via a routing server comprising: a storage unit for storing information on a path to each of the plurality of databases; and an access unit for accessing each of the plurality of databases;

a searching unit for searching electronic-program-guide data from the one particular database that is pre-designated as a function of the input retrieval keyword and the at least one extracted additional keyword,

wherein, when the input retrieval keyword is input, relevant keywords, extracted by the dictionary database are sent to the routing server, and

wherein the routing server accesses one of the databases in a data server storing the particular database, storing desired data by selecting a route to the data server, whereby the desired data is obtained.

In an analogous art, Livowsky teaches a dictionary database for storing a plurality of retrieval keywords and a plurality of additional keywords relevant to said retrieval keywords (natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word

from a search request and creates one or more alternate search words using synonyms. *Therefore, there is a corresponding dictionary database that stores the retrieval keywords {word of the search query} in order to identify corresponding keywords relevant to those keywords extracted from the search query.* Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – P. 11: lines 11-14 teaches a knowledge database 916 used to store and retrieve contextual synonyms {dictionary database}),

wherein the dictionary database is stored in a data server whereby, by providing the dictionary database in the data server, the dictionary database is used in common, and accordingly, in a client having a small data storage capacity in a home server, a HDD recorder 400, or a PC, storage capacity is not occupied by the dictionary database (Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – Figs.1&2, .6: lines 16-19, P.7: lines 1-3, P.10 lines 21-24, P.11: lines 11-14 teaches a knowledge database 916 that is implemented in a system database connected to system server at the server end form which queries are made. *Livowsky'605 teaches the dictionary database stored at the server end and not at the user end.* Col 2: lines 31-34, Col 5: lines 45-49 teaches a user computer 404 that is linked to the server computer via internet to search and retrieve information from a

database. *The client device is a PC device that inherently has some type of storage capacity that contains at least some data in order interact with the user and/or execute functions. The data storage can be considered small since, the claim has not adequately defined what constitutes a small data storage, so local storage compared to server side storage is small in comparison*), and

wherein when contents of the dictionary database are updated, maintenance of the difference data does not need to be performed by the home server (Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – P.12: line 21 - P.13: line 31 teaches updating dictionary database. Figs.1&2, .6: lines 16-19, P.7: lines 1-3, P.10 lines 21-24, P.11: lines 11-14 teaches a knowledge database 916 that is implemented in a system database connected to system server at the server end form which queries are made. *Livowsky'605 teaches that the dictionary database is stored and updated at the server side, therefore the device serving the user {home server} which does not contain the dictionary database would not have to perform maintenance of keeping updated data of the knowledge database since it does not store the knowledge database locally*),

an accessing unit for accessing said dictionary database as a function of said retrieval keywords and the plurality of additional keywords (natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a

search request and creates one or more alternate search words using synonyms. *Therefore, the system is able to access the corresponding dictionary database in order to obtain alternative relevant keywords*);

when receiving the input retrieval keyword, extracting means for extracting at least one additional keyword from the dictionary database as a function of the input retrieval keyword (natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms. *At least one additional keyword is extracted in order to create a new search with the alternative relevant keyword*),

wherein, when the input retrieval keyword is input by the input means, the at least one additional keyword is extracted from the dictionary database as a function of the input retrieval keyword by the extracting means (natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms. *At least one additional keyword is extracted relating to the keyword inputted*);

a searching unit for searching data from the one particular database as a function of the input retrieval keyword and the at least one extracted additional keyword that is pre-designated as a function of the input retrieval keyword and the at least one extracted additional keyword (Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a

search request and creates one or more alternate search words using synonyms. Col 4: lines 33-39 teaches searching data from a database based on the keyword and at least one additional keyword, returning the results based on the keywords search to the user),

wherein, when the input retrieval keyword is input, relevant keywords, extracted by the dictionary database are sent to a routing mechanism, and wherein the routing mechanism accesses one of the databases in a data server, whereby the desired data is obtained (Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – Fig.9, P.16: lines 19-22 teaches searching a datasoup for one or more records for a match and then accessing the target database to retrieve data).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Schein's system to include a dictionary database for storing a plurality of retrieval keywords and a plurality of additional keywords relevant to said retrieval keywords; wherein the dictionary database is stored in a data server whereby, by providing the dictionary database in the data server, the dictionary database is used in common, and accordingly, in a client having a small data storage capacity in a home server, a HDD recorder 400, or a PC, storage capacity is not occupied by the dictionary database, and wherein when contents of the dictionary database are updated, maintenance of the difference data does not need to be performed by the home server; an accessing unit for

accessing said dictionary database as a function of said retrieval keywords and the plurality of additional keywords; when receiving the input retrieval keyword, extracting means for extracting at least one additional keyword from the dictionary database as a function of the input retrieval keyword, wherein, when the input retrieval keyword is input by the input means, the at least one additional keyword is extracted from the dictionary database as a function of the input retrieval keyword by the extracting means; a searching unit for searching data from the one particular database as a function of the input retrieval keyword and the at least one extracted additional keyword that is pre-designated as a function of the input retrieval keyword and the at least one extracted additional keyword, wherein, when the input retrieval keyword is input, relevant keywords, extracted by the dictionary database are sent to a routing mechanism, and wherein the routing mechanism accesses one of the databases in a data server, whereby the desired data is obtained, as taught by Livowsky, for the advantage of providing a user friendly system that accepts queries in natural language form, providing answers hat are not only just an exact match between a user formulated search, but also considers synonyms and other approximations of search words, so that the system will not fail to find a relevant answer for the user (Livowsky – Col 1: line 60 - Col 2: line 8, Col 2: lines 18-26).

Schein and Livowsky do not explicitly teach a designating unit for pre-designating one particular database from among a plurality of databases,

including an electronic-program-guide database, a movie information database, and a drama information database,

wherein each of the plurality of databases are provided in separate data servers for distributed arrangements at different locations;

a selecting unit for selecting a route to the particular database via a routing server comprising: a storage unit for storing information on a path to each of the plurality of databases; and an access unit for accessing each of the plurality of databases;

a searching unit for searching electronic-program-guide data from the one particular database;

routing server

In an analogous art, Boyer teaches teach a designating unit for pre-designating one particular database from among a plurality of databases (Fig. 7; Col. 1: lines 61-65, Col 11: lines 46-57, Col: 12, lines 4-15), including an electronic-program-guide database, a movie information database (Col 4: lines 55-64),

wherein each of the plurality of databases are provided (Col 4: lines 55-64);

a selecting unit for selecting a route to the particular database via a routing server comprising: a storage unit for storing information on a path to each of the plurality of databases; and an access unit for accessing each of the

plurality of databases; routing server; storing the particular database, storing desired data by selecting a route to the data server (Col 9: lines 38-40 and Col 6: lines 37-41 teaches issuing a search request for data to database server and therefore selects a route to the particular database based on pre-selection as a function of stored access information and path information. Boyer discloses that a plurality of databases for maintaining scheduling information can be provided {Col 4: lines 55-57}. A user submits a search through a scheduling application on web server {Col 9: lines 38-40, col. 7, lines 16-18 and col. 6, lines 37-41}, wherein the scheduling application on the web server in turn issues search request for data to the appropriate database {Col 6: lines 37-39, Col 20: lines 7-12} to obtain schedule information and provide the search results to the user {Col 20: lines 16-18}. Since the web server issues database requests to obtain schedule information pertaining to a user query, the web server is the routing server which routes the request to the appropriate databases based on user's search. Such a web server comprises a path information {criteria can be programmed into request page code} and further comprises an access unit as it is able to access schedule information from the respective databases {transform user requests into SQL requests, i.e. database requests} to which it is able to issue request);

a searching unit for searching electronic-program-guide data from the one particular database (Col 9: lines 38-40, Col 7: lines 16-18, Col 6: lines 37-41 teaches a user submitting a search through a scheduling program. Col 6: lines

37-39, Col 20: lines 7-12 teaches wherein the scheduling application in turn issues a search request for data to the appropriate database).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein and Livowsky to include a designating unit for pre-designating one particular database from among a plurality of databases, selecting means for selecting a route to the particular database via a routing server comprising: a storage unit for storing information on a path to each of the plurality of databases; and an access unit for accessing each of the plurality of databases; routing server; storing the particular database, storing desired data by selecting a route to the data server; a searching unit for searching electronic-program-guide data from the one particular database, as taught by Boyer, for the advantage of providing a system that can efficiently maintain and manage multiple databases without fail, allowing data to be stored in a more orderly and organized manner, providing users with further search options, expanding the flexibility of search parameters.

Schein, Livowsky, and Boyer do not explicitly teach a drama information database,

databases in separate data servers for distributed arrangements at different locations;

In an analogous art, Hendricks teaches a drama information database (Col 31: lines 36-39).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, and Boyer to include a drama information database, as taught by Hendricks, for the advantage of providing interested users a further category in which to easily query desired programming, allowing users to easily select/view desired programming.

Schein, Livowsky, Boyer, and Hendricks do not explicitly teach wherein each of the plurality of databases are provided in separate data servers for distributed arrangements at different locations;

In an analogous art, Erdelyi teaches databases in separate data servers for distributed arrangements at different locations (Col 24: lines 15-19).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, Boyer, and Hendricks to include databases in separate data servers for distributed arrangements at different locations, as taught by Erdelyi, for the advantage of allowing for multiple databases to be individually maintained providing more specialized, specific, and more accurate data, and also increasing reliability and modularity of databases.

Consider **claim 23,** Schein teaches an electronic-program-guide retrieval system (Col 1: lines 49-56) comprising:

a data server including, one of which is a television electronic-program-guide database for storing program information of an electronic program guide

(Col 8: line 64 - Col 9: line 1, Col 9: lines 16-17, 48-51) containing only keywords determined by an EPG provider as retrieval keywords (Col 13: lines 33-39, Col 13: lines 36-43);

a client (computer 12-Fig.1, set top box 420-Fig.7) having a certain data storage capacity (Col 5: lines 40-43, Col 7: lines 41-48) comprising input means for inputting a retrieval keyword for retrieving the program information (Col 2: lines 18-23);

a database provided at the client side for storing retrieval keywords (Col 9: lines 22-28, Col 13: lines 32-39);

accessing a EPG database to search program records based on an input retrieval keyword (Col 13: lines 33-39) to retrieve query results related to the input retrieval keyword (Col 13: lines 36-43).

Schein does not explicitly teach a dictionary database provided at the data server side for storing retrieval keywords and relevant keywords relevant to said retrieval keywords,

wherein the dictionary database is stored in a data server whereby, by providing the dictionary database in the data server, the dictionary database is used in common, and accordingly, in a client having a small data storage capacity in a home server, a HDD recorder 400, or a PC, storage capacity is Not occupied by the dictionary database, and

wherein when contents of the dictionary database are updated, maintenance of difference data does not need to be performed by the home server; and

a routing server having an access unit for accessing selectively said database and route information,

wherein when retrieval keyword is input, and relevant-keyword information relevant to the retrieval keyword input by said client is extracted from said routing server and the routing server accesses one of the plurality of databases, including an electronic-program-guide database, a movie information database, and a drama information database via said routing server storing information on routes to the parts of said data server; and

wherein said routing server accesses the database by:

pre-designating one particular database from among a plurality of databases, including an electronic-program-guide database, a movie information database, and a drama information database,

wherein each of the plurality of databases are provided in separate data servers for distributed arrangements at different locations;

selecting a route to the particular database that is pre-selected via a routing server comprising: a storage unit for storing information on a path to each of the plurality of databases; and an access unit for accessing each of the plurality of databases;

searching electronic-program-guide data from the one particular database that is pre-designated as a function of the input retrieval keyword and the at least one extracted additional keyword,

wherein, when the input retrieval keyword is input, relevant keywords, extracted by the dictionary database are sent to the routing server, and

wherein the routing server accesses one of the databases in a data server storing the particular database, storing desired data by selecting a route to the data server, whereby the desired data is obtained.

In an analogous art, Livowsky teaches a dictionary database provided at the data server side for storing retrieval keywords and relevant keywords relevant to said retrieval keywords (natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms. *Therefore, there is a corresponding dictionary database that stores the retrieval keywords {word of the search query} in order to identify corresponding keywords relevant to those keywords extracted from the search query.* Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – P 11: lines 11-14 teaches a knowledge database 916 used to store and retrieve contextual synonyms {dictionary database}. P.10: lines 21-24 teaches that databases are implement on servers),

wherein the dictionary database is stored in a data server whereby, by providing the dictionary database in the data server, the dictionary database is used in common, and accordingly, in a client having a small data storage capacity in a home server, a HDD recorder 400, or a PC, storage capacity is not occupied by the dictionary database (Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – Figs.1&2, .6: lines 16-19, P.7: lines 1-3, P.10 lines 21-24, P.11: lines 11-14 teaches a knowledge database 916 that is implemented in a system database connected to system server at the server end form which queries are made. *Livowsky'605 teaches the dictionary database stored at the server end and not at the user end.* Col 2: lines 31-34, Col 5: lines 45-49 teaches a user computer 404 that is linked to the server computer via internet to search and retrieve information from a database. *The client device is a PC device that inherently has some type of storage capacity that contains at least some data in order interact with the user and/or execute functions. The data storage can be considered small since, the claim has not adequately defined what constitutes a small data storage, so local storage compared to server side storage is small in comparison*), and

wherein when contents of the dictionary database are updated, maintenance of the difference data does not need to be performed by the home server (Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter

referred to as Livowsky'605. Livowsky'605 – P.12: line 21 - P.13: line 31 teaches updating dictionary database. Figs.1&2, .6: lines 16-19, P.7: lines 1-3, P.10 lines 21-24, P.11: lines 11-14 teaches a knowledge database 916 that is implemented in a system database connected to system server at the server end form which queries are made. *Livowsky'605 teaches that the dictionary database is stored and updated at the server side, therefore the device serving the user {home server} which does not contain the dictionary database would not have to perform maintenance of keeping updated data of the knowledge database since it does not store the knowledge database locally*),

a routing mechanism having an access unit for accessing selectively said database (natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms. *Therefore, the system is able to access the corresponding dictionary database in order to obtain alternative relevant keywords*),

wherein when retrieval keyword is input, and relevant-keyword information relevant to the retrieval keyword input by said client is extracted from said routing mechanism and the routing mechanism accesses one of the databases (Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – Fig.9, P.16: lines 19-22 teaches searching a

datasoup for one or more records for a match and then accessing the target database to retrieve data),

searching data from the one particular database that is pre-designated as a function of the input retrieval keyword and the at least one extracted additional keyword (Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms. Col 4: lines 33-39 teaches searching data from a database based on the keyword and at least one additional keyword, returning the results based on the keywords search to the user),

wherein, when the input retrieval keyword is input, relevant keywords, extracted by the dictionary database are sent to the routing mechanism (Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – Fig.9, P.16: lines 19-22 teaches searching a datasoup for one or more records for a match and then accessing the target database to retrieve data),

Therefore, it would have been obvious to a person of ordinary skill in the art to modify Schein's system to include a dictionary database provided at the data server side for storing retrieval keywords and relevant keywords relevant to said retrieval keywords, wherein the dictionary database is stored in a data server whereby, by providing the dictionary database in the data server, the dictionary database is used in common, and accordingly, in a client having a

small data storage capacity in a home server, a HDD recorder 400, or a PC, storage capacity is Not occupied by the dictionary database, and wherein when contents of the dictionary database are updated, maintenance of difference data does not need to be performed by the home server; and a routing mechanism having an access unit for accessing selectively said database, wherein when retrieval keyword is input, and relevant-keyword information relevant to the retrieval keyword input by said client is extracted from said routing mechanism and the routing mechanism accesses one of the databases, searching data from the one particular database that is pre-designated as a function of the input retrieval keyword and the at least one extracted additional keyword, wherein, when the input retrieval keyword is input, relevant keywords, extracted by the dictionary database are sent to the routing mechanism, as taught by Livowsky, for the advantage of providing a user friendly system that accepts queries in natural language form, providing answers hat are not only just an exact match between a user formulated search, but also considers synonyms and other approximations of search words, so that the system will not fail to find a relevant answer for the user (Livowsky – Col 1: line 60 - Col 2: line 8, Col 2: lines 18-26).

Schein and Livowsky do not explicitly teach a data server including a plurality of databases,

a routing server and route information;

routing server and the routing server accesses one of the plurality of databases, including an electronic-program-guide database, a movie information

database, and a drama information database via said routing server storing information on routes to the parts of said data server; and

wherein said routing server accesses the database by:

pre-designating one particular database from among a plurality of databases, including an electronic-program-guide database, a movie information database, and a drama information database,

wherein each of the plurality of databases are provided in separate data servers for distributed arrangements at different locations;

selecting a route to the particular database that is pre-selected via a routing server comprising: a storage unit for storing information on a path to each of the plurality of databases; and an access unit for accessing each of the plurality of databases;

searching electronic-program-guide data from the one particular database;

wherein the routing server accesses one of the databases in a data server storing the particular database, storing desired data by selecting a route to the data server, whereby the desired data is obtained.

In an analgous art, Boyer teaches a data server including a plurality of databases (Col 12: lines 4-22),

a routing server and route information; routing server and the routing server accesses one of the plurality of databases, including an electronic-program-guide database, a movie information database, via said routing server

storing information on routes to the parts of said data server (Col 9: lines 38-40 and Col 6: lines 37-41 teaches issuing a search request for data to database server and therefore selects a route to the particular database based on pre-selection as a function of stored access information and path information. Boyer discloses that a plurality of databases for maintaining scheduling information can be provided {Col 4: lines 55-57}. A user submits a search through a scheduling application on web server {Col 9: lines 38-40, col. 7, lines 16-18 and col. 6, lines 37-41}, wherein the scheduling application on the web server in turn issues search request for data to the appropriate database {Col 6: lines 37-39, Col 20: lines 7-12} to obtain schedule information and provide the search results to the user {Col 20: lines 16-18}. Since the web server issues database requests to obtain schedule information pertaining to a user query, the web server is the routing server which routes the request to the appropriate databases based on user's search. Such a web server comprises a path information {criteria can be programmed into request page code} and further comprises an access unit as it is able to access schedule information from the respective databases {transform user requests into SQL requests, i.e. database requests} to which it is able to issue request);

wherein said routing server accesses the database by:

pre-designating one particular database from among a plurality of databases (Fig. 7; Col. 1: lines 61-65, Col 11: lines 46-57, Col: 12, lines 4-15),

including an electronic-program-guide database, a movie information database (Col 4: lines 55-64),

selecting a route to the particular database that is pre-selected via a routing server comprising: a storage unit for storing information on a path to each of the plurality of databases; and an access unit for accessing each of the plurality of databases; wherein the routing server accesses one of the databases in a data server storing the particular database, storing desired data by selecting a route to the data server, whereby the desired data is obtained (Col 9: lines 38-40 and Col 6: lines 37-41 teaches issuing a search request for data to database server and therefore selects a route to the particular database based on pre-selection as a function of stored access information and path information. Boyer discloses that a plurality of databases for maintaining scheduling information can be provided {Col 4: lines 55-57}. A user submits a search through a scheduling application on web server {Col 9: lines 38-40, col. 7, lines 16-18 and col. 6, lines 37-41}, wherein the scheduling application on the web server in turn issues search request for data to the appropriate database {Col 6: lines 37-39, Col 20: lines 7-12} to obtain schedule information and provide the search results to the user {Col 20: lines 16-18}. Since the web server issues database requests to obtain schedule information pertaining to a user query, the web server is the routing server which routes the request to the appropriate databases based on user's search. Such a web server comprises a path information {criteria can be programmed into request page code} and further comprises an access unit as it

is able to access schedule information from the respective databases {transform user requests into SQL requests, i.e. database requests} to which it is able to issue request);

searching electronic-program-guide data from the one particular database (Col 9: lines 38-40, Col 7: lines 16-18, Col 6: lines 37-41 teaches a user submitting a search through a scheduling program. Col 6: lines 37-39, Col 20: lines 7-12 teaches wherein the scheduling application in turn issues a search request for data to the appropriate database);

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein and Livowsky to include a data server including a plurality of databases, a routing server and route information; routing server and the routing server accesses one of the plurality of databases, including an electronic-program-guide database, a movie information database, via said routing server storing information on routes to the parts of said data server; wherein said routing server accesses the database by: pre-designating one particular database from among a plurality of databases, selecting a route to the particular database that is pre-selected via a routing server comprising: a storage unit for storing information on a path to each of the plurality of databases; and an access unit for accessing each of the plurality of databases; wherein the routing server accesses one of the databases in a data server storing the particular database, storing desired data by selecting a route to the data server, whereby the desired data is obtained; searching electronic-program-guide data

from the one particular database, as taught by Boyer, for the advantage of providing a system that can efficiently maintain and manage multiple databases without fail, allowing data to be stored in a more orderly and organized manner, providing users with further search options, expanding the flexibility of search parameters.

Schein, Livowsky, and Boyer do not explicitly teach drama information database,

wherein each of the plurality of databases are provided in separate data servers for distributed arrangements at different locations;

In an analogous art, Hendricks teaches a drama information database (Col 31: lines 36-39).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, and Boyer to include a drama information database, as taught by Hendricks, for the advantage of providing interested users a further category in which to easily query desired programming, allowing users to easily select/view desired programming.

Schein, Livowsky, Boyer, and Hendricks do not explicitly teach wherein each of the plurality of databases are provided in separate data servers for distributed arrangements at different locations;

In an analogous art, Erdelyi teaches databases in separate data servers for distributed arrangements at different locations (Col 24: lines 15-19).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, Boyer, and Hendricks to include databases in separate data servers for distributed arrangements at different locations, as taught by Erdelyi, for the advantage of allowing for multiple databases to be individually maintained providing more specialized, specific, and more accurate data, and also increasing reliability and modularity of databases.

Consider **claim 6,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi teach wherein the input retrieval keyword and the at least one extracted additional keyword are interrelated to each other (Livowsky - natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms. *Therefore, there is a corresponding dictionary database that stores the retrieval keywords {word of the search query} in order to identify corresponding keywords relevant to those keywords extracted from the search query.* Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – P 11: lines 11-14 teaches a knowledge database 916 used to store and retrieve contextual synonyms {dictionary database}).

Consider **claim 7,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi teach wherein when part of a word to be used as the input retrieval keyword is input, said word to be used as the input retrieval keyword and the at least one extracted additional keyword are extracted from a retrieval-keyword database (natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to extract the word from a search request and creates one or more alternate search words using synonyms. Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – P 11: lines 11-14 teaches a knowledge database 916 used to store and retrieve contextual synonyms {dictionary database}) storing previously input keywords (Livowsky'605 – P.12: line 26 – P.13: line 4) in a predetermined order (Livowsky'605 – P.13 – P.14).

Consider **claim 12,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi teach wherein said dictionary database is provided at the client side (Schein – Col 9: lines 21-36).

Consider **claim 13,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi teach wherein said dictionary database is provided at the data server side (Schein - Col 8: lines 62-67, Col 9: lines 1-9; Livowsky'605 – P.10: lines 21-24).

Consider **claim 15,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi teach wherein said client accesses a necessary part of said data server via a routing server storing information on routes to the parts of said data server (Boyer - Col 9: lines 38-40, Col 6: lines 37-41).

6. **Claim 9** is rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US 6,133,909), in view of Livowsky (US 6,594,657), in view of Boyer et al. (US 7,165,098), in view of Hendricks (US 5,798,785), in view of Erdelyi (US 6,631,522), Brown et al. (US 7,523,302).

Consider **claim 9,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi do not explicitly teach wherein when a particular genre is relevant to cooking, a different genre is relevant to cooks.

In an analogous art, Brown teaches wherein when a particular genre is relevant to cooking, a different genre is relevant to cooks (Col 4: lines 35-49, Col 5: line 57 – Col 6: line 14, Col 6: line 45 – Col 7: line 3).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, Boyer, Hendricks, and Erdelyi to include wherein when a particular genre is relevant to cooking, a different genre is relevant to cooks, as taught by Brown, for the advantage of providing users expanded categories allowing them to further get information that is relevant to everyday activities such as cooking, allowing them greater access to desired information.

7. **Claims 10 and 21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US 6,133,909), in view of Livowsky (US 6,594,657), in view of Boyer et al. (US 7,165,098), in view of Hendricks (US 5,798,785), in view of Erdelyi (US 6,631,522), Huxley et al. (US 6,134,547).

Consider **claim 10,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi do not explicitly teach wherein when a particular genre is relevant to place names, a different genre is relevant to names of persons.

In an analogous art, Brown teaches wherein when a particular genre is relevant to place names, a different genre is relevant to names of persons (Col 6: line 65 – Col 7: line 49 teaches an query method when a user types in a keyword such as ‘John Williams', the related search retrieves additional keyword related to the person wherein the additional keyword includes an adjective related to place name {e.g. American Composer}. Huxley additionally discloses that any keywords maybe used as an input retrieval keyword. Therefore there exists scenarios, wherein a user may enter "American composer" {i.e. input retrieval keyword genre has an adjective related to place names} and the retrieved keywords is names of people that are American composers).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, Boyer, Hendricks, and Erdelyi to include wherein when a particular genre is relevant to place names, a different genre is relevant to names of persons, as taught by Huxley, for the advantage of

providing users expanded categories allowing them to further get information on varying items based on people and place, allowing them greater access to desired information, and more flexibility in search.

Consider **claim 21,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi do not explicitly teach wherein the program information includes data relevant to place names.

In an analogous art, Huxley teaches wherein the program information includes data relevant to place names (Col 7: lines 35-40 teaches allowing to search shows by geographic locations {place names}).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, Boyer, Hendricks, and Erdelyi to include wherein when a particular genre is relevant to place names, a different genre is relevant to names of persons, as taught by Huxley, for the advantage of providing users expanded categories allowing them to further get information on varying items based places, allowing them greater access to desired information, and more flexibility in search.

8. **Claim 14** is rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US 6,133,909), in view of Livowsky (US 6,594,657), in view of Boyer et al. (US

7,165,098), in view of Hendricks (US 5,798,785), in view of Erdelyi (US 6,631,522), and further in view of Beach et al. (US 2003/0014753).

Consider **claim 14,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi do not explicitly teach wherein said client downloads and stores the program information.

In an analogous art, Beach teaches wherein said client downloads and stores the program information (Paragraph 0018).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, Boyer, Hendricks, and Erdelyi to include wherein said client downloads and stores the program information, as taught by Beach, for the advantage of providing easy and quick access to necessary information, shortening delay time in providing information to users, allowing them to quickly view and select desired programming.

9. **Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over Schein et al. (US 6,133,909), in view of Livowsky (US 6,594,657), in view of Boyer et al. (US 7,165,098), in view of Hendricks (US 5,798,785), in view of Erdelyi (US 6,631,522), and further in view of Lee et al. (US 6,463,428).

Consider **claim 18,** Schein, Livowsky, Boyer, Hendricks, and Erdelyi teach wherein previously input keywords (Livowsky'605 – P.12: line 26 – P.13: line 4) are stored in a retrieval-keyword database (natural language interface 416-Fig.4; Col 4: line 47 – Col 5: line 25 teaches a natural language interface that is able to

extract the word from a search request and creates one or more alternate search words using synonyms. Col 4: lines 4-6, 48-51 teaches commonly assigned Application 09/327,605 is incorporated by reference in its entirety for all purposes hereinafter referred to as Livowsky'605. Livowsky'605 – P 11: lines 11-14 teaches a knowledge database 916 used to store and retrieve contextual synonyms), but do not explicitly teach the stored keywords are arranged in order of frequency of use.

In an analogous art, Lee teaches stored keywords are arranged in order of frequency of use (Fig. 18; Col 5: lines 8-16, Col 15: lines 10-64).

Therefore, it would have been obvious to a person of ordinary skill in the art to modify the system of Schein, Livowsky, Boyer, Hendricks, and Erdelyi to include wherein said client downloads and stores the program information, as taught by Lee, for the advantage of providing the user with a more efficient searching system, allowing for faster query of popular items, shortening the necessary time for retrieval, providing better overall response time.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON LIN whose telephone number is (571)270-1446. The examiner can normally be reached on 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Pendleton can be reached on (571)272-7527. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason Lin/
Examiner, Art Unit: 2425

/Brian T Pendleton/
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